

RECEIVED
CENTRAL FAX CENTER

10/527,477

JUL 21 2006

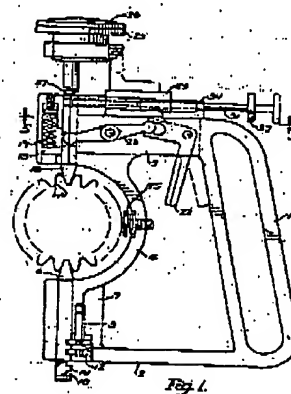
REMARKS

The Applicant thanks the Examiner for indicating that claim 17 is objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claim. In accordance with this indication, the subject matter of claims 13, 14, 16 and 17 are incorporated into new independent claim 26 and this amended independent claim is now believed to be allowable.

Claims 13-16, 18, and 19 are rejected, under 35 U.S.C. § 103, as being unpatentable over Parker et al. '534 in view of Wagner '844. The Applicant acknowledges and respectfully traverses the raised obviousness rejection in view of the following remarks.

As shown below, Parker et al. '534 is a very basic gear gauge which relates to the function of checking tooth and spline spacing of adjacent teeth and splines on gears as well as diameter and symmetry measurements of the gear itself. The gauge includes a gauge finger 6 and a opposite gauge finger 16 which engage opposite sides of the gear to perform the gear teeth size and spacing check. As noted at column 3, lines 63-69, the gauge is really only capable of measuring this basic gear structure. "The minus reading in this case indicates that the teeth between the spaces are too small. If the reading is plus, it will be known that the teeth are too large."

Both gauge fingers 6, 16 are mounted in a tool having a handle portion 1 with a lower arm 2 and an upper arm 3. The arms 1, 2 are integrally connected by means of a semi-circular part 4, which receives the gear to be checked. Beside the basic nature of the measurements attainable with this device, the Applicant notes that with this arrangement, the size of the gear or spline to be checked is limited by the diameter defined by the radial limitations and radial support of the fingers and semi-circular part 4 itself.



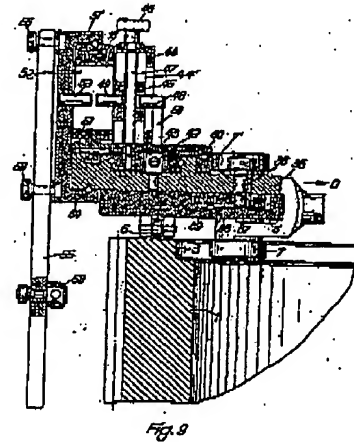
7/20/06 2:21 PM

10/527,477

To check the gear or spline, the gear is first placed into the semi-circular part 4 and the gauge finger 6 is brought into communication with one side of the gear. The opposite gauge finger 16 is then biased toward the gear by a coil spring 17 to measure or check the gear. After the measurement or check is taken, the opposite gauge finger 16 is then retracted from the gear by means of a trigger 22 and a rocker arm 23. To aid in the correct placement of the gear within the semi-circular part 4, a screw threaded button 45 is placed at the base of the semi-circular part 4 to prevent over insertion of the gear.

While arguably both Parker '534 and Wagner '844 provide testing and measurement of a gear, any such similarity between the two devices ends at this general comparison. Wagner '844 is a significantly more sophisticated device and in particular is designed to achieve a much more detailed testing and measurement of the gear than in Parker '534. Specifically, and well beyond the express or inherent capabilities of Parker '534, Wagner '844 teaches a gear testing device disclosing an attachment facilitating the involute test for examining the involute profiles of the gear teeth around a gear. As is well known, the profile of gear teeth is a critical aspect of the gear mesh so that continuous points of contact and an even load of energy transfer are maintained on opposing teeth.

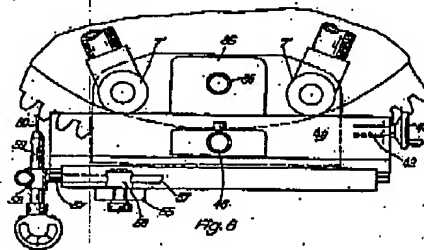
As noted in FIG. 9 of Wagner '844 reproduced here for the Examiner's benefit, the involute test necessitates a rather complicated device that by way of general description turns the gear as a function of the roll angle of the tooth profile through a complex set of mechanical settings and cams which move an indicator along the nominal, involute profile of the gear tooth.



7/21/2006 2:21 PM

10/527,477

By way of general explanation, as seen in FIG. 8, and as described in Wagner's specification, entirely different from Parker '534, the involute tester essentially follows the tracer tip 60 of the dial indicator 59 along the profile of each of the gear teeth to specifically chart and record the output of the indicator as a function of the roll angle of the gear tooth profile. Part of this involute testing attachment includes an eccentric member 36 seen in FIG. 9, which in conjunction with slide 38 and spring 39, permits the relative movement of a supporting block 35 in a radially defined direction relative to the gear being measured.



As the Examiner is certainly aware, in order to properly support a combination of references in an obviousness rejection under 35 U.S.C. § 103, the references must provide some disclosure, teaching or suggestion which would lead one of skill in the art to combine the references in the manner as suggested by the Examiner. Primarily, Parker '534 and Wagner '844 are substantially different devices directed to entirely different types of measurements for gears. Parker '534 has no mechanism or structure for performing an involute test, nor is there any disclosure or teaching relating to such a measurement of the involute profile of gears in Parker '534. It is the Applicant's position that these two devices are both so entirely different both structurally and functionally that therefore not only would one of skill in the art not be motivated to combine them, but that such a combination would be structurally impossible.

1200PM - 221 PM

- 7 -

10/527,477

Wagner '844, like Parker '534 and many other known devices in the art, is capable of performing the well known tooth width test via the device as shown in Wagner's FIG. 6. As best the Applicant can ascertain however, the device shown in FIG. 6 does not include any type of cam or eccentric device. Therefore, even if the appropriate features of Wagner '844 and the disclosed tooth width test attachment from FIG. 6 could be combined with Parker '534, the combination would still fail to disclose any sort of eccentric means as recited in claim 13.

The current rejection in the official action states, "Wagner teaches using an eccentric pin 36 to move part of the mechanism in a desired direction". This of course relates, not to the tooth width measurement attachment, but to the involute profile measurement attachment. Be that as it may, while the Examiner's statement may or may not be true, the actual stated purpose of the eccentric pivot 36 "... serves to engage the edge of rolling slide 40 with rollers 7' which are connected to and rotate with the rollers 7 previously described". Column 3, lines 55-58. Even if the eccentric pivot could be combined with the Parker '534 reference, and the Applicant adamantly asserts that this is not supported by either reference, the eccentric pivot 36 thus has nothing to do with the positioning of any sort of finger or feeler pin or other measurement device as specifically recited in the Applicant's claim 13 wherein "... an eccentric disk (13) [that] positions the movable feeler pin (10) in a measuring position".

As the Examiner is undoubtedly aware, to support an obviousness rejection, the Examiner must identify where the prior art provides a motivating suggestion to make the modifications proposed ... *In re Jones*, 958 F.2d 347, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992). The mere fact that the prior art may be modified as suggested by the Examiner does not make the modification obvious unless the prior art suggests the desirability of the modification, *In re Fritch*, 922 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The Applicant asserts neither of the cited references suggests that the gauge fingers of Parker '534 should or could be

7/21/06 2:31 PM

- 8 -

10/527,477

moved into a measuring position by an eccentric disk, or the eccentric disk of Wagner '844 should or could be used to move gauge fingers into a measuring position

In regards to claim 14, the Examiner suggests that Parker '534 discloses a raising apparatus 45. The screw threaded button 45 of Parker '534 is located at the bottom of the semi-circular recessed member 4. As previously stated, the screw threaded button 45 aids in the proper placement of the gear within the recessed member by preventing the user from overly inserting the gear to be tested beyond a specific point. It is used during testing multiple gears of the same size. In use, when a first of many same sized gears is properly inserted into the semi-circular recessed member 4, the screw threaded button 45 is adjusted to meet a facing surface of the gear. In this manner, when the first gear is pulled from the semi-circular recess a second gear is placed into the recess such that the face of the gear abuts the screw threaded button 45 and is prevented from further insertion. Thus, aiding in the speed which the gears are inserted into the testing device. It should be pointed out that the screw threaded button is adjusted only once for measuring a great number of like sized gears. It does not take an active role in analyzing the gears. This is distinctly different from Applicant's claim 14.

According to the current claims the component 2 or the gear is placed on a measurement table, which is then guided to the fixed feeler pin 9 and the movable feeler pin 10 by the raising apparatus 4. That is, the raising apparatus 4 actively moves the gear into a position where the feeler pins 9, 10 then perform the measurements.

In order to further emphasize the above noted distinctions between the presently claimed invention and the applied art, new independent claim 20 has been added to specifically recite the feature of "a support table upon which the component (2) is axially supported and radially adjustable". The Applicant points out that neither of the applied references either alone or in combination disclose any sort of table or axial support upon which the gear is laid flat and then radially arranged in a manner so as to be tested and measured. Such support is, in fact,

7/20/06 3:21 PM

- 9 -

10/527,477

contrary to the applied Parker et al. '534 reference which as set forth in column 1, lines 7-11 is, in fact, for measuring gears while machine mounted in their working positions "[t]he general purpose of this invention is to provide a gauge structure which may be used for checking machine elements, such as gears without the necessity of removing the element from where it is mounted". This, in fact, teaches away from any such table mounted measuring device as claimed by the Applicant especially where Parker's gauge at best merely radially supports the gear within the part 4.

Furthermore, arguably Wagner '844 discloses an eccentric member 36 and spring 39 for engaging an edge of slide 40 with rollers 7'. However this engagement has nothing to do with any sort of gear positioning device. As the Examiner notes in the Official Action, "Wagner teaches using an eccentric pin 36 to move part of the mechanism in a desired direction". (Emphasis Added). Contrary to Wagner's structure and function, claim 20 clearly recites that the eccentric disk is a part of the gear positioning mechanism which radially adjusts the gear on the support table:

. . . a component positioning mechanism for adjusting the component (2) to press the component (2) against the fixed feeler pin (9) thus bringing the component (2) into a defined measurement position on the support table, the component positioning mechanism comprising;

a lever actuating an eccentric disc which via a spring mechanism (14) moves a linear slide to engage the movable feeler pin (10) with the component and radially adjust the component into the defined measurement position.

As this specifically recited feature is not disclosed, taught or suggested in any manner by the cited references, either alone or in combination, new claim 20 is believed to clearly and patentably distinguish the presently claimed invention from all of the art of record, including the

7/20/06 3:21 PM

- 10 -

10/527,477

applied art. As claims 21-25 depend directly or indirectly from claim 20 these claims are thus also believed to be allowable.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejections should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejections or applicability of the Parker et al. '534 and/or Wagner '844. references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time. The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

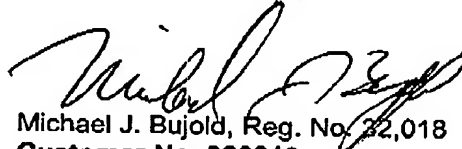
7/20/06 4:21 PM

- 11 -

10/527,477

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



Michael J. Bujold, Reg. No. 22,018

Customer No. 020210

Davis & Bujold, P.L.L.C.

112 Pleasant Street

Concord, NH 03301-2931

Telephone 603-226-7490

Facsimile 603-226-7499

E-mail: patent@davisandbujold.com

7/20/06 2:21 PM

- 12 -